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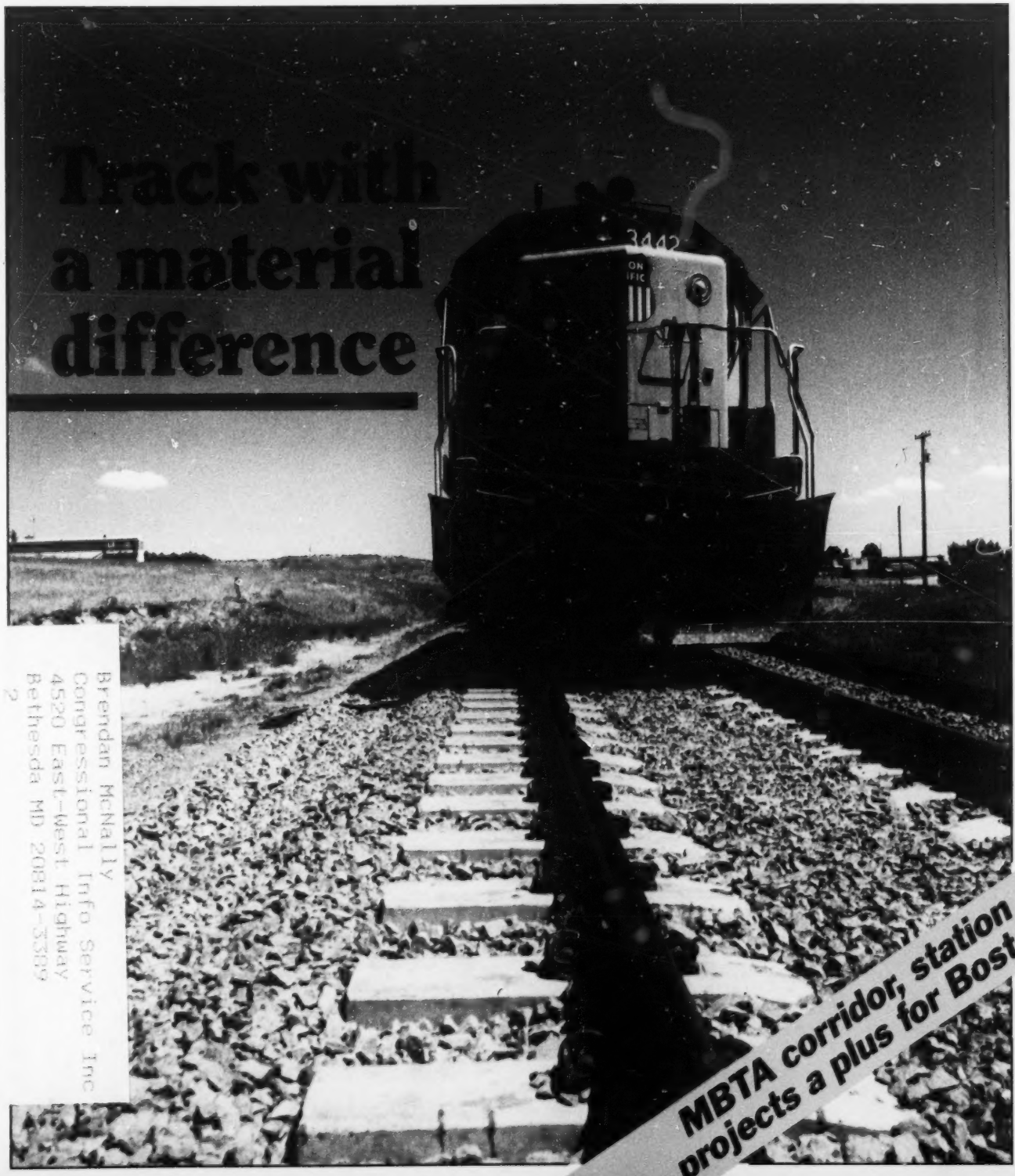
March 1988

Railway Age

...for the new age of railways and rail transit



MBTA corridor, station projects a plus for Boston

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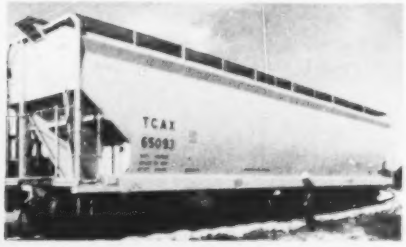

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Market Outlook

Equipment

Morrison-Knudsen: Awarded a contract to Wellman Thermal Systems Corp. to furnish aluminized steel strip heaters and related hardware for a project involving the refurbishing of 275 R-42 cars for the New York City Transit Authority.

NJ Transit Rail Operations: Awarded a $9.5-million (U.S.) contract to Bombardier for 12 additional commuter cars. Bombardier has already delivered 150 Comet II commuter cars to New Jersey, and recently refurbished 147 Comet I cars built by Pullman Standard in the early 1970s.

Occidental Chemical Corp.: Leased 105 6,150-cubic-foot-capacity covered hopper cars from Pullman Leasing. The cars, equipped with circular hatches, are designed for plastics service.

Union Pacific: Ordered 100 new diesel-electric units at a cost of $116 million. General Electric will supply 75 Dash 8-40-C units and the Electro-Motive Division of General Motors 25 SD-60s.

Westinghouse Electric: Has entered into a preliminary agreement with AEG, a West German company owned by Daimler Benz, under which the two companies plan to combine their transportation businesses in a new global joint venture company. Both Westinghouse and AEG make propulsion equipment and people mover systems. The joint venture will be named AEG-Westinghouse Transportation Systems (AWTS) and "will combine the worldwide transportation design, manufacturing, sales and service activities of the two companies."

Facilities

Miami Beach City Commission: Awarded a contract to the Tampa office of Parsons Brinckerhoff Quade & Douglas for a study of rail options to connect Miami Beach with downtown Miami and the Miami Metrorail/Metromover systems. A light rail line connecting the Miami Beach Convention Center with the Miami hotel district has been under consideration.

New York City Transit Authority: Will begin tests this month of automatic fare collection equipment supplied by Cubic Western Data of San Diego, Calif., and CGA of France. For the tests, new stainless steel turnstiles that accept both tokens and magnetically coded cards have been installed at 71 token booth areas in selected subway stations. The system being tested by NYCTA is a "swipe reader" system, similar to that used in Boston. The pilot project is being conducted at a cost of $9 million. NYCTA will evaluate the equipment for reliability, ease of maintenance, marketability, and passenger acceptance. If NYCTA decides to install AFC equipment systemwide, the cost could be in the neighborhood of $100 million (*RA*, April 1987, p. 56).

New York MTA: Awarded a two-year contract to Transportation and Distribution Associates (TAD) for providing independent engineering services. TAD has provided similar services to MTA for the last three years. MTA is obligated by its bondholders to retain an independent engineer.

Revenue freight carloadings

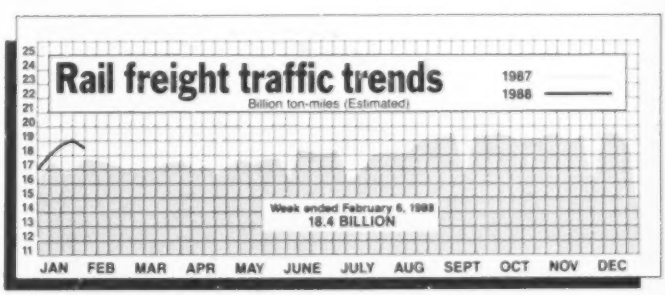
Commodity	Feb. 6 week	Jan. 30 week	Jan. 23 week	Jan. 16 week	Jan. 9 week	Jan. 2 week
Grain	33,466	34,194	32,934	33,525	28,435	24,966
Other farm products	4,097	5,002	4,881	5,008	4,715	4,248
Metallic ores	12,297	11,194	10,610	13,066	12,936	11,976
Coal	113,546	119,438	123,710	116,378	107,774	83,495
Crushed stone, gravel and sand	11,355	11,263	11,816	10,060	8,777	7,756
Nonmetallic minerals	9,916	10,018	9,832	10,311	11,644	7,347
Grain mill products	10,724	11,189	10,904	11,497	11,419	9,470
Food and kindred products	11,308	11,615	11,691	11,642	10,742	7,968
Primary forest products	10,375	10,859	10,444	10,289	9,523	7,322
Lumber and wood products except furniture	7,562	8,739	7,887	7,097	6,895	5,688
Pulp, paper and allied products	12,487	12,427	12,636	11,949	13,024	12,392
Chemicals and allied products	27,393	28,472	27,914	27,506	27,405	23,947
Petroleum products	4,830	5,116	4,907	5,265	5,070	4,052
Stone, clay and glass products	9,268	9,319	9,121	8,580	8,061	7,147
Coke	5,769	5,350	5,537	5,766	5,953	5,486
Metals and products	10,647	11,604	10,874	10,591	10,161	9,390
Motor vehicles and equipment	19,438	20,024	20,040	19,428	15,373	6,774
Waste and scrap materials	9,349	9,078	9,572	9,064	7,588	5,062
Forwarder and shipper assn. traffic	2,562	2,740	2,683	2,489	1,841	1,540
All other carloads	80,968	79,652	78,615	78,133	68,310	54,818
LCL traffic	—	—	—	—	—	—
Total Cars Loaded	**407,357**	**417,293**	**416,608**	**407,544**	**375,646**	**300,844**
% change from previous year	1.9	11.5	11.9	3.2	2.4	12.6
Estimated revenue ton-miles (billions)	18.4	19.1	18.8	18.2	17.1	14.2
% change from previous year	2.5	11.3	11.7	3.4	3.4	12.8

Total:	**1988**	**1987**	**% change**
5 weeks	91.5	86.0	6.4

Piggyback loadings

	Jan. 30 week	Jan. 23 week	Jan. 16 week	Jan. 9 week	Jan. 2 week
Trailers/containers	104,393	101,156	99,908	90,073	72,458

Cumulative total, 4 weeks		**% change from 1987**
Trailers/containers	395,530	5.9


Rail freight traffic trends
Billion ton-miles (Estimated)
1987
1988
Week ended February 6, 1988
18.4 BILLION
JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

Source: Association of American Railroads

ARCI expects more than 38,000 new cars to be delivered in 1988-89, and one out of five will be covered hoppers, like this one offered by Thrall.

For carbuilders, a mini-boom

As rising demands are placed on an aging and shrinking fleet, the freight-car market is coming alive. Carbuilders are more than equal to the challenge. Component supply may be another story.

By GUS WELTY, Senior Editor

Cautiously, ever so cautiously, U.S. manufacturers of freight cars and producers of freight-car components are looking for better times.

They are not looking for a 95,000-car year (1979). But they are forecasting something better than the recent 12,000-car years (1984-86), and they are certainly expecting a boom compared with the nadir year of 5,700 cars (1983).

Forecasts by members of the American Railway Car Institute see gradual growth through this year and next, with deliveries of more than 21,000 new cars in 1989 and orders for more than 24,000 cars.

One supplier of major car components may express the view of a lot of people in the business: "I have the feeling that when the market breaks loose, it's really going to break loose. But we've been burned so badly in the past that I'm almost afraid to say things like that out loud."

A carbuilder has thoughts that consider a market break in a different way. Freight-car

Union Tank and other suppliers look for tank-car deliveries totaling over 11,500 in 1988-89.

Freight car deliveries: ARCI forecast

Car type	1988	1989
Box	313	569
Covered hopper	3,622	4,222
Flat, non-articulated	1,143	1,464
Flat, articulated	4,000	4,221
Gondola, except rotary	143	625
Gondola, rotary	798	1,364
Open-top hopper	1,350	2,042
Refrigerator	0	0
Tank	5,736	5,736
Other	138	229
Total	**17,306**	**21,036**

Source: ARCI, averages of individual-member forecasts

Freight car deliveries: The trend

1978	67,440
1979	95,650
1980	85,465
1981	44,825
1982	17,236
1983	5,772
1984	12,396
1985	12,080
1986	12,521
1987	13,186
1988	17,300*
1989	21,000*

*ARCI forecast

The freight car surplus: Going, going . . .

	1987	1986	1982
Covered hopper cars			
Maximum	16,532	27,326	49,058
Minimum	4,082	7,731	31,788
Average	8,657	16,287	41,041
Open-top hopper cars			
Maximum	29,947	38,086	69,111
Minimum	5,958	11,647	30,765
Average	13,178	23,020	44,886

Source: AAR

construction capacity, he points out, is still well above what anybody sees as freight-car demand in the near-term. But he's concerned about what might happen with anything more than a modest upturn in car orders in terms of the availability of components and even of basic steel materials.

Obviously, the carbuilding industry has changed from what it was less than a decade ago, when capacity was in the neighborhood of 100,000 cars a year. Through attrition and acquisition, there are fewer companies, fewer manufacturing facilities.

Carbuilding-capacity estimates today vary from 45,000 to about 60,000, with Trinity Industries at the top and Thrall Car second, and with Gunderson, Bethlehem Steel and Union Tank about equal in a third tier, followed by ACF Industries (which has been building in large part for its own account, Shippers Car Line). Trinity lists six manufacturing facilities (three for its Freight Car Division, three for its Tank Car Division), Thrall shows four plants, and all the other builders now work out of one plant each.

• **A component crunch?** The most optimistic forecast in the recent ARCI survey sees 1989 deliveries of 27,200 cars, and orders for about 32,000, so construction capability is not a foreseeable problem. But components?

Less obviously but just as surely, the freight-car-component part of the railway supply industry has shrunk, not just in volume capacity but also in the number of companies now producing key components. Today, while there are a half-dozen carbuilders, there are two suppliers of freight-car axles (one of which is owned by a carbuilder), three suppliers of wheels, and two suppliers of truck side frames and bolsters (with perhaps a third to join them). In these vital areas, a shortage of material, a problem of raw-material quality (such as one supplier has had), and/or a labor problem could put a severe crimp in production and thus in carbuilding capability.

Commercial considerations and the economics attached to them drive car acquisitions. History is not a very good indicator. But car-fleet numbers and the car-fleet condition, coupled with commercial/economic factors, may be.

History seems to show that the market is, if nothing else, unpredictable, influenced as much by politics as anything else. The real boom years were the years of incentive per diem and tax shelters, years when the Interstate Commerce Commission was preoccupied with what it saw as a boxcar shortage and years when owning a freight car or a piece of a fleet presented certain tax advantages.

In the best recent years for carbuilding, revenue freight ton-miles were lower than they were in the past several years, certainly lower than in the record-high year 1987. Increased efficiencies in car-movement skew the numbers. So does the use of higher-capacity cars.

• **Figuring the market.** But, there are indications that the long-awaited growth in freight-car acquisitions really is coming. Consider some of these factors:

—With the low level of purchases since 1981, the average age of the freight-car fleet has been going up. It was not so long ago that the jumbo covered hopper car became popular, but by one estimate the average age of the covered-hopper fleet today is 16 years or more.

—Car surpluses have been dropping sharply. In the depths of the recession of the 1980s, for example, the average surplus of covered hopper cars was 41,000-plus. Last year, it was 8,657 cars, and at its low point it was less than half of that. The numbers on surplus open-top hopper cars are higher, across the board, but the surplus that hit a top of more than 69,000 cars in1982 fell to a minimum of fewer than 6,000 cars in 1987. If you figure in the widely-held theory that cars still "surplus" are flawed in terms of economics, design, capacity, condition, and so forth, then you come to the conclusion that the remaining surplus doesn't mean much.

—Last year, carloadings in 17 of the 21 traffic categories measured by the Association of American Railroads went up, while ton-miles were hitting that record high. Freight-car utilization continued to improve. But the fact remains that the number of cars in the fleet, railroad and private, went down from 1,350,532 cars to fewer than 1,290,000, and the tonnage capacity of the fleet dropped from 115.9 million tons to 111.7 million. Meanwhile, grain loadings were at a record level, coal loadings were up, intermodal loadings were up, loadings of chemicals and products were up, to mention just four growth areas that are expected to continue to be growth areas.

—At least one carbuilder believes that total fleet size will continue to drop, to about 1.1 million cars and perhaps lower. Here, the theory is that perhaps one-third of the fleet is closely-managed and high-utilization equipment, another one-third gets average management and use and the lowest one-third isn't used much, and the fall-out is going to come in that bottom grouping. Even if that's true, however, demand should be there for equipment of newer design and higher capacity. And, it might be noted that the much-maligned boxcar, written off as something out of the past, is finding new use in the hands of imaginative railroad marketing officers. Railbox earned a profit last year, something that some people doubted could happen.

Estimated ownership—all revenue freight cars—railroad & private Dec. 1, 1987 vs Dec. 1, 1986

Ownership		Box	Covered Hopper	Gondola	Hopper	Flat	Refrig	All Other	Total	Capacity—Tons Average	Capacity—Tons Aggregate
Class I	1987	163,806	143,307	95,624	204,278	84,395	41,473	15,061	747,944	84.89	63,492,966
	1986	191,708	149,865	104,446	221,774	85,533	37,670	16,995	807,991	84.03	67,895,484
Class II & III	1987	44,503	13,532	16,354	20,083	5,747	3,742	3,061	107,022	84.27	9,018,744
	1986	43,111	13,249	15,370	20,938	5,079	3,388	3,263	104,398	84.12	8,781,960
Railbox – Railgon	1987	13,361	NA	1,617	NA	NA	NA	NA	14,978	78.90	1,181,764
	1986	13,412	NA	1,878	NA	NA	NA	NA	15,290	79.18	1,210,662
RRO&C Refrigerators	1987	NA	NA	NA	NA	NA	3,010	NA	3,010	NA	NA
	1986	NA	NA	NA	NA	NA	5,673	NA	5,673	NA	NA
Private	1987	786	129,348	31,426	24,872	44,123	4,727	181,435	416,717	90.54	37,729,577
	1986	1,149	129,517	31,319	26,036	45,802	3,393	179,964	417,180	89.81	37,466,936
Grand Total	1987	222,456	286,187	145,021	249,233	134,265	52,952	199,557	1,289,671	86.63	111,724,199
	1986	249,380	292,631	153,013	268,748	136,414	50,124	200,222	1,350,532	85.83	115,916,162

NOTE: Effective January 1, 1987, Insulated Equipped Box cars were excluded from Box and included in Refrigerator category.

Source: AAR

—Not always but sometimes, price increases are a harbinger of increasing demand, and prices are rising in the freight-car market. Steel prices are up, in part because of surcharges. Car-component prices are up, and prices on some major components will soon be going up again. These prices, vendors say, are still not equal to what they were in the halcyon days of car-building, but some of the increases are significant in percentage terms, 10% to almost 25% on certain products. At the same time, lead times are stretching out, even on basic steel where deliveries can sometimes run from 90 to 120 days. "There's less capacity," one carbuilder says, "and maybe there's product the mills would rather turn out."

—For component suppliers, railroad heavy-repair programs are providing a boost. Contract shops and even a carbuilder or two are also benefitting, perhaps because of labor costs that are lower than those in railroad-owned facilities.

—Companies dealing in reclamation of car components may come up against a problem, and some already are. Railroads are scrapping fewer cars because there are fewer left to scrap, and they're repairing the best of what there is. All of that is good news for suppliers of new components.

—While some carbuilders are concerned about possible shortages of components, others are not, noting that offshore suppliers are still interested in the U.S. market. Once before, in the big-building years, foreign suppliers penetrated the market, then dropped out when the freight-car market collapsed. They're still interested.

—If a market surge happens, some component suppliers may face a situation where they will have to do start-up on cold plants, facilities that have been mothballed but kept in operating condition. The problem may lie not in getting the machinery working but rather in getting supervision and a competent work force in place.

—If a surge in demand should come, in some areas suppliers would quite possibly be faced with decisions regarding the expansion of capacity, the building of new facilities. That, one component supplier says, "would be a gut-wrenching decision because of what we've all been through before."

—There are those who decry the control of railroads by holding companies with other interests. There are those who lament the rise of "the beady-eyed bean-counters" who look at all investments in terms of their return. But the ascendancy of the financial folks isn't all bad, not if they can figure out where railroads have their best chance to make a dollar and then put the investment in those directions.

• Targeting tomorrow's traffic. At some point, the question has to be asked—and answered—as to what markets railroads really want to pursue.

At this point, the answer seems to be in terms of intermodal and bulk commodities (although what some people are doing with the old boxcar would make you wonder).

Railway suppliers seem to have some confidence that railroads don't actually want to give up market share to motor carriers or to any other competitors, so long as the market is profitable.

Some markets are obvious. One has to do with grain, with covered hopper cars, with the record-year 1987 and with prospects that export traffic will increase. One has to do with coal, not with the inflated forecasts of production and use a few years ago, but with more realistic forecasts that have something to do with the impact upon power-generation of the Shoreham and Seabrook nuclear plant fiascoes and with the current predictions of increases in oil and gas prices.

And one market forecast has to do with intermodal.

At some point, the question of intermodal profitability may somehow be laid to rest. In the meantime, railroads and others will continue to pursue intermodal traffic, international and domestic. And here, the mix of the car fleet may have to undergo some change. For one thing, some observers see domestic containerization as a growth industry, finally. For another, some see the coming of a greater balance between import and export loaded movements, thanks to the changing relationships between the dollar and foreign currencies. For a third, which has directly to do with rail equipment, some see demand for greater inland movement of 20-foot containers, which heretofore have largely been kept captive to all-water movement because of economic factors which added up to the fact that the water carriers could make more money by shipboard movement of the short boxes. Railroads are already seeing more 20-foot units and the growth, some say, will continue, meaning that more well-cars will have to be built to handle 20-foot containers

Double-stack equipment continues to be the hottest item on the intermodal scene. Trinity Industries built these five-unit "Backpackers."

in all bottom positions, even as railroads cope with the handling of 45- and 48-foot containers as well as the standard 40-foot ISO units.

• **As the builders see it.** In the meantime, what do the carbuilders really think? Consider some of these observations:

—Trinity Industries sees continued strength in intermodal and in orders related to the petrochemical industry. But Trinity's top people are also seeing activity in areas where there hasn't been much: "It wasn't so long ago that people were saying that nobody would ever again build a boxcar. But there are inquiries out there regarding boxcars. The market for coal cars was dormant last year, but it's also coming back." Southern Companies is expected to place an order with a builder this month for 500 aluminum-bodied fast-discharge cars, and that could be just a beginning. Overall, Trinity notes, 1987 had a relatively strong finish, "and we're looking for a stronger 1988."

—Thrall Car finds encouragement in the trend lines, forecasting a better 1988 in terms of orders but stopping short of calling the upturn a "significant" one. Thrall has been strong in equipment for intermodal, plastics, and building-products service, all areas in which traffic has been on the increase, areas which are expected to see further growth.

—At Gunderson, marketing-and-sales people see "everything poised for a rebound," though they're careful to add that the industry has thought this before and it didn't happen. Gunderson has been buoyed by its first production order for the so-called heavy-lift double-stack container car. There's some question as to whether the market will be as good for center-partition cars as it's been for the past couple of years. But there seems to be no question as to the continued growth of car-refurbishing operations.

—Observers who questioned Bethlehem Steel's staying-power a few years ago have backed off. Bethlehem has been showing strength in a couple of areas, mainly in the intermodal and coal car markets. It's one of Bethlehem's people who heads the ARCI market forecast committee, and it's perhaps an indication of the outlook that he was a bit surprised that builder and supplier predictions did not run higher than they did.

—Union Tank Car looks back at a 1987 that was the best year for tank car production in a long time, and looks ahead to a "very strong" 1988. The market has been gradually expanding for more than a year, Union says, all marketable cars are leased, and increased production may be in the works. Interestingly, during the lean years, just a couple of rather narrow markets kept builders working, but now demand is broadening out especially as the chemical processing industry gets healthier and expands.

—General American is also coming off a good year, with car fleet additions up, utilization up, loadings up, and with indications that the trends will continue. The GATX car leasing and management subsidiary, General American Transportation, in fact, showed record earnings for 1987.

—As part of the broad restructuring of the carbuilding industry that has taken place since the last high-production year, manufacturing and/or marketing agreements have been worked out by Trinity and GATX and by Union Tank and Thrall. In each case, the marriages seem to be performing up to expectations.

—If there is a wild card in the deck, it's South Korea. Hyundai cracked the U.S. market with two orders for 100 intermodal platforms each from Trailer Train, and there have been rumors to the effect that Hyundai is interested in acquiring facilities here. South Korea's Daewoo, meanwhile, will be shipping 200 flat car kits for assembly in the U.S. by Transcisco Industries (formerly the PLM Companies) and has entered into a long-term joint venture with Transcisco for manufacturing and marketing cars "of lower cost and high quality."

Thus far, not many major railroads have announced their total equipment programs for 1988. An exception is Norfolk Southern, which will be acquiring small-cube covered hopper cars, covered gondolas, auto racks, and aggregate cars as well as RoadRailer units. Trailer Train has its plan in place, (p. 14) and has placed its first orders, Conrail has announced the acquisition of auto racks, and BN says it will increase its capital budget for freight cars and intermodal equipment. Both NS and CSX have extensive car rehabilitation and upgrading programs scheduled for 1988, including carbody replacements on 1,000 open-top hopper cars by NS. But the largest such program may be the one scheduled by Union Pacific, which plans modification rebuild-repair of 10,000 cars this year at four shops.

Between what's firm and what's forecast, it seems clear that the market is back—somewhat.

For carbuilders and component suppliers, it won't be nirvana, not yet. But after the past few years, even a mini-boom is something to cheer about. ■